

## Attachment B

# Local Hazard Mitigation Plan Annex City of San Ramon

## Introduction

The City of San Ramon is a moderately-sized community in Contra Costa County, California. The City is located in the southern, central portion of the county along the I-680 corridor. The City has a population of 53,137 people, based on the 2005 census<sup>1</sup>. With recent construction, the City population is expected to grow to 100,000 by 2010. In FY 2006 year, the City's operating budget was \$46,612,535. The City employs full time 226 people. The City is in the process of creating its own Police Services Department with a planned official services commencing on July 1, 2007. Fire services are supplied by the San Ramon Valley Fire Protection District.

## The Planning Process

This process of preparing this plan was familiar to the City of San Ramon. The City has a Safety Element to its General Plan last updated in 1999 that includes a discussion of fire, earthquake, flooding, and landslide hazards. In addition, the City routinely enforces the requirements of the California Environmental Quality Act (CEQA) requirements. The City's effort has focused on building on these pre-existing programs and identifying gaps that may lead to disaster vulnerabilities in order to work on ways to address these risks through mitigation.

Many of the activities conducted by the City were fed into the planning process for the multi-jurisdictional plan. The City participated the general Association of Bay Area Governments (ABAG) "kick-off" meeting and the General Assembly Conference on the Plan. In addition, the City has provided oral comments on the multi-jurisdictional plan. Finally, the City provided information on critical facilities.

In February 2007 key City staff met to identify and prioritize mitigation strategies appropriate for the City. Staff involved in these meetings included the Chief of Planning, Chief Building Official, Economic Development Director, City Engineer, Public Services Director and Police Chief. Staff identified the "high priority" hazard mitigation issues and discussed preliminary potential funding sources for strategies to address them. *The City provided the opportunity for the public to comment on the DRAFT mitigation strategies selected by City staff at a City Council meeting on March 27, 2007. The resolution adopting the plan and strategies were on the City Council agenda. The mitigation strategies will become an implementation appendix to the Safety Element.*

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<sup>1</sup> For complete Census information on this city, see <http://www.bayareacensus.ca.gov/>.

## Hazard and Risk Assessment

The ABAG multi-jurisdictional Local Hazard Mitigation Plan, to which this is an Annex, lists nine hazards that impact the Bay Area, five related to earthquakes (faulting, shaking, earthquake-induced landslides, liquefaction, and tsunamis) and four related to weather (flooding, landslides, wildfires, and drought). The major risk for the City of San Ramon is earthquake related as there is the northern end of the Calaveras fault, which bisects the City, near Interstate 680.

The City utilizes GIS mapping systems that are updated frequently. Additionally, the City participates and shares mapping information with the San Ramon Valley Fire Protection District and Contra Costa County. Additional maps and history of disaster declarations in Contra Costa County between 1950 and 2000 can be found at ABAG's website: <http://quake.abag.ca.gov/mitigation/disaster-history.html>.

The City examined the hazard exposure of urban land based on the information found on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. Of the 7,484 documented acres in the City 6,728 are urban, of which,

- ◆ Earthquake faulting – there is one active fault running within the City, so rupture of a fault is a direct concern. 478 urban acres are located within the Alquist-Priolo Earthquake Fault Zone as mapped by the California Geological Survey, including 14 which are urban “open” and not developed.
- ◆ Earthquake shaking – 7,360 acres (6,719 urban acres) are in the highest two categories of shaking potential, in large part because the Calaveras fault bisects the City of San Ramon at or near Interstate 680.
- ◆ Earthquake-induced landslides – the California Geological Survey has not completed mapping of this hazard in the City of San Ramon. However, because few areas have been mapped as landslides, this hazard is viewed as similar to that posed by weather-related hazards.
  - Considerations and concerns exist regarding the high pressure jet fuel pipeline that runs along the Iron Horse Trail and the large enclosed reservoirs at the tops of the hills in the area.
- ◆ Earthquake liquefaction – 3,799 urban acres are in areas of moderate, high, or very high liquefaction susceptibility.
- ◆ Tsunamis –Tsunamis are not a hazard in the City of San Ramon. We are not located near any ocean or bay waterways.
- ◆ Flooding –117 acres are in the 100-year flood plain, while an additional 27 acres are in other flood-prone areas.
- ◆ Landslides –516 acres are in areas of existing landslides.
- ◆ Wildfires –779 acres are subject to high, very high, or extreme wildfire threat, and 5,416 acres are in wild-land-urban interface threat areas.
- ◆ Dam Inundation – 0 acres are subject to documented dam inundation, required by the Dam Failure Act.

- ◆ Drought – all 7,484 acres (6,728 urban acres) are subject to drought.

The City of San Ramon also examined the hazard exposure of infrastructure based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. Of the 180 miles of roadway in the City,

- ◆ Earthquake faulting – One active fault runs within the City, so rupture of a fault is a direct concern. While 15 miles of roadway are located in and around the Alquist-Priolo Earthquake Fault Zone as mapped by the California Geological Survey, several roads do cross the Calaveras fault and are likely to be closed if that fault ruptures.
- ◆ Earthquake shaking – 179 miles of roadway are in the highest two categories of shaking potential.
- ◆ Earthquake-induced landslides – the California Geological Survey has not completed mapping of this hazard in the City of San Ramon. However, this is likely to be an issue because roadways are in existing landslide areas.
- ◆ Earthquake liquefaction – 109 miles of roadway are in areas of moderate, high, or very high liquefaction susceptibility.
- ◆ Tsunamis – Tsunamis are not a hazard in the City of San Ramon. We are not located near any ocean or bay waterways.
- ◆ Flooding – 3 miles of roadway are in the 100-year flood plain, while an additional one mile is in other flood-prone areas.
- ◆ Landslides – 11 miles of roads are in areas of existing landslides.
- ◆ Wildfires – 15 miles of roadway are subject to high, very high or extreme wildfire threat, while 144 miles are in wildland-urban interface threat areas.
- ◆ Dam Inundation – 0 miles of roadway are in an area subject to documented dam inundation areas required by the Dam Failure Act.
- ◆ Drought – is not a hazard for roadways.

Finally, the City examined the hazard exposure of critical health care facilities, schools, and city-owned buildings based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickcrit.html>. Of the critical facilities in the City:

- ◆ Earthquake faulting – One active faults runs within the City so rupture of a fault is a direct concern. However, of the five critical facilities owned by the City, none are within the Alquist-Priolo Earthquake Fault Zone as mapped by the California Geological Survey.
- ◆ Earthquake shaking – All five of the critical structures owned by the City of San Ramon are in the highest two categories of shaking potential.
- ◆ Earthquake-induced landslides – The California Geological Survey has not completed mapping of this hazard in the City of San Ramon. However, this is not likely to be an issue because no critical facilities owned by the City are in existing landslide areas.
- ◆ Earthquake liquefaction – Three of the five critical facilities owned by the City are in areas of moderate, high, or very high liquefaction susceptibility.

- ◆ Tsunamis – Not applicable.
- ◆ Flooding – No critical City-owned facilities are in either the 100-year flood plain or in other flood-prone areas.
- ◆ Landslides – None of critical City-owned facilities are in areas of existing landslides.
- ◆ Wildfires – No critical facilities owned by the City are in a wildfire threat area, while all five are in wild land-urban interface threat areas.
- ◆ Dam Inundation – No critical health care facilities, schools, or City-owned facilities are in an area subject to dam inundation.
- ◆ Drought – Drought will not affect city buildings directly. However, the City does not operate a water-supply distribution system.

In spite of the areas of City located in flood-prone areas, there are no repetitive loss properties in the City based on the information at <http://quake.abag.ca.gov/mitigation/pickflood.html>.

The City plans to work with ABAG during 2007 to improve the risk assessment information being compiled by ABAG. While no unreinforced masonry buildings are located in the City, the City may have soft-story apartments.

Drought, though a potential problem in the City, is not fully assessed. The City will work with ABAG and various water supply agencies on this issue.

The City plans to work with ABAG to develop specific information about the kind and level of damage to buildings, infrastructure, and critical facilities which might result from any of the hazards previously noted.

As these impacts are not fully developed, the City has reviewed the hazards identified and ranked the hazards based on past disasters and expected future impacts. The conclusion is that earthquake (particularly shaking, fault surface rupture, and liquefaction), flooding, wildland-urban-interface fires and wildfire, and landslides (including unstable earth) pose a significant risk for potential loss.

## **Mitigation Activities and Priorities**

As a participant in the ABAG multi-jurisdictional planning process, City of San Ramon staff helped in the development and review of the comprehensive list of mitigation strategies in the overall multi-jurisdictional plan. The list was discussed at meetings with the Chief of Planning, Chief Building Official, Economic Development Director, City Engineer, Public Services Director and Police Chief during February 2007. In addition, representatives of the fire district and school district were invited to this meeting, but they are providing their own plan and strategies that will be included in ABAG's Annex plan. During the meetings, all of the mitigation strategies were reviewed. The tentative decision on priority was made based on a variety of criteria, not simply on an economic cost-benefit analysis. These criteria include

being technically and administratively feasible, politically acceptable, socially appropriate, legal, economically sound, and not harmful to the environment or our heritage.

Over time, we are committed to developing better hazard and risk information to use in making those trade-offs. We are not trying to create a disaster-proof region, but a disaster-resistant one. In addition, several of the strategies are existing City programs.

These draft priorities were submitted to the City Manager for review. The draft priorities were provided to the City Council on March 27, 2007 and adopted by resolution. The public will be provided with an opportunity to comment on the DRAFT priorities. The final strategies (as shown in the attached Table) will become an Implementation Appendix to the City's Safety Element.

The City has identified several areas where funding is needed to improve hazard mitigation, as shown on the attached table. In particular, the City needs to complete the assessment of its critical facilities relative to seismic and other hazards. Completion of this task will impact the City's efforts to fund any needed improvements.

## **The Plan Maintenance and Update Process**

The City Manager and the Emergency Preparedness Manager will ensure that monitoring of this Annex will be on an on-going basis. However, the major disasters affecting our community, legal changes, notices from ABAG as the lead agency in this process, and other triggers will be used. Finally, the Annex will be a discussion item on the agenda of the meeting of City Department Directors at least once a year in April. At that meeting, the Department Directors will focus on evaluating the Annex in light of technological and political changes during the past year or other significant events. This group will be responsible for determining if the plan should be updated. Any updates to the plan will be presented to the City Council for consideration and acceptance.

The City of San Ramon is committed to reviewing and updating this plan annex at least once every five years, as required by the Disaster Mitigation Act of 2000. The City Emergency Preparedness Manager will contact ABAG four years after this plan is approved to ensure that ABAG plans to undertake the plan update process. If so, the City again plans to participate in the multi-jurisdictional plan. If ABAG is unwilling or unable to act as the lead agency in the multi-jurisdictional effort, other agencies will be contacted, including the County's Office of Emergency Services. Counties should then work together to identify another regional forum for developing a multi-jurisdictional plan. The city will identify other partner agencies to include in consideration of joint planning efforts and response considerations.

The public will continue to be involved whenever the plan is updated and as appropriate during the monitoring and evaluation process. Prior to adoption of updates, the City will provide the opportunity for the public to comment on the updates. A public notice will be posted prior to the meeting to announce the comment period and meeting logistics.